By Maureen Hannan

Seamless, Sma

Reserve a Site?

Park agency automation software grows up and goes mobile

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"CAN'T WE LET THE PATRONS DO THIS FOR THEMSELVES?" John Willey, CEO of Vermont Systems, remembers saying of one of the early versions of his company's park agency registration software. He laughs as he recalls how quickly he and his colleagues dismissed the idea as far-fetched. It was the early 1990s, he explains: The Web was in its infancy, and most in the field were thrilled simply to see registrations expedited and paperwork reduced.

Park and recreation software packages, which first came on the market in the mid-1980s as utilities for entering and tracking patron registrations, have evolved to handle as many different functions and tasks as the agencies they serve. They reserve campgrounds and tee times, book fields and facilities, track labor and equipment usage, expedite work orders, generate league schedules, manage user passes and IDs, conduct point-of-sale transactions, and more. Not to mention spitting out finely tuned reports on anything those data records encompass. And, increasingly, agencies' public-facing (''front-end'') and in-house (''back-end'') systems are being designed to bridge the divide between signing up patrons and operating facilities.

The direction of park and recreation software systems is being steered not only by the expansion of online and mobile technologies, but also by the pressures of economic recession. These pressures include increasing public demand for park services, programs, and facilities; agencies' move toward ''pay-to-play'' revenue models; exploding interest nationwide in campground tourism and park-run attractions and events; and continual pressures on departments to justify every dollar budgeted or spent.

All are leading agencies and software vendors to ask how they can integrate functions, leverage Web platforms and mobile devices—and mine, analyze, and present data for smarter marketing and planning.

Seamless

The line between public-facing registration/reservation systems and in-house management automation is blurring, says NRPA's Bill Beckner, a park research specialist and veteran agency director. Beckner, who introduced Fairfax County, Virginia, to its first automated registration systems in the 1990s, notes the steadily growing use of computer-aided maintenance management systems (CMMSs) across the parks and recreation field. Not only are agencies reaping the benefits of tracking labor, materials, and equipment—but their constituents are also being served by front-end/back-end integrations that alert operations personnel to facilities needs as classes are filled and reservations are booked.

''The goal is cross-departmental communication,'' says Willey, of the dovetailing of the Vermont Systems CMMS (MainTrac) with its registration system (RecTrac). ''We are trying to eliminate manual steps for getting work orders to the field.''
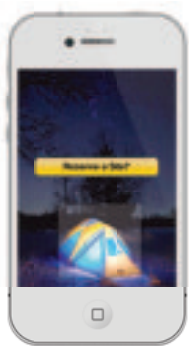
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''Before, it would take two to three days for a work order to reach a crew,'' Justin Smith, park operations director for Baton Rouge (Louisiana) comments of the RecTrac/MainTrac integration. ''Now rec staff can enter the work orders—and they get to the crew in minutes. It builds communication between recreation and maintenance staffs. They're just more in synch,'' Smith adds. Steve McDaniel, Fort Wayne (Indiana) parks superintendent, says the instant feedback the RecTrac/MainTrac integration allows for has increased employees' willingness to share ideas and communicate problems—all of which translates to better care of resources and greater responsiveness to patrons' needs.

Pam Ragland, administrative manager for Charleston County Park and Recreation Commission, describes a communication among numerous back-end front-end system modules in Charleston's automation system (''Class'' by Active Networks) in which, as a result of the dovetailing of functions, ''many areas of the agency are impacted—both the everyday workings of the parks and customers, and management decisions made based on various types of reporting, such as demographics of participants, retail levels of various items, etc.,'' Ragland says. That seamlessness, she adds, has been a key element of Charleston's success in building customer participation into a sustainable revenue-based model. In fact, since the integrated module system went live in 2008, Charleston has doubled its online registration percentages revenues (from 20 percent to 40 percent) and tripled its revenues.

Web-based and Mobile-friendly

More and more, patrons and staff want the ability to log in and access parks' computer-based systems from any location and through any mobile device. Regardless of whether basic models, like Active.com's event-registration hosting program, or complex, custom systems are used, bypassing desktop installations to individual computer workstations means lower cost, easier access, and greater efficiency. San Diego County's (California) parks department, for example, leases its computers from Hewlett-Packard. As IT director Peggy Rose explains, their software vendor, Art Street, in providing a hosted web-based system, allows Rose and her staff to keep software- and hardware-related issues separate.

The Front End

Patrons want to browse classes, register for programs, reserve facilities, examine venue seating graphics, check in (or check out) at campgrounds, and pay whatever fees they incur in the process. And they want the option of doing all those things from their mobile devices. Ragland says Charleston County has gone since 2008 from 20 percent of patrons registering online to 40 percent. She anticipates that as they add mobile capabilities, they will see that percentage climb.

Tom O'Rourke, Charleston County parks director, emphasizes that the mobile outreach extends well beyond registrations and reservations. ''Patrons can take environmental tours in our parks by scanning the bar codes from their smart phones. You can get video or audio messages. We also are on the verge of hiring a software designer to develop an interactive program that will allow the public to comment on trail runs, bird watching, and almost any aspect of Exploring our Parks [nature program].''

Like Charleston, San Diego County is exploring all that mobile phone features can do to serve and engage the public. In 2010 and 2011, the agency introduced intelligent barcode scanning which, says Rose, ''enables staff to scan a camper's confirmation for quick check-in, or scan a product on the shelf of their store, or scan an annual pass to quickly record a customer's visit.'' She adds that Art Street's CAMAVA system now also makes use of magnetic card to record visits by annual pass holders—as well as including a point-of-sale module that allows for a one-click or touch process to keep lines short and manageable.

The Back End

Park agency maintenance and operations personnel seldom work behind desks. And CMMSs are only as good as the data staffers log. According to John Willey, Vermont Systems now assumes that MainTrac clients will have workers in the field entering data through ''ruggedized'' laptops in trucks or through handheld mobile devices.

McDaniel sees web platform and mobile access as a means to accurate, complete CMMS record-keeping. ''If tasks are done at outlying buildings, employees still have access to the system and can log the work as soon as it's completed.'' he notes. ''It takes the paper and the extra step out of the process.''

Justin Smith says the ease with which workers can enter facilities data online helped the agency recover millions of dollars in the aftermath of a natural disaster. In 2008, after Hurricane Gustav hit Baton Rouge hard, Smith used the CMMS data to file the required Federal Emergency Management Administration (FEMA) documentation. ''In our case, it's not a question of whether another hurricane will hit—it's a question of when.'' And the more user-friendly and accessible the database is, Smith adds, the more reliable and complete its reporting.

Data Riches and Targeted Niches

While front-end and back-end systems gather and rely on very different types of data, both offer analysis and reporting capabilities that can boost park agencies' bottom line. From demographics profiles to cost-per-acre breakdowns, the software allows agencies to fine-tune their outreach, hone their efficiency, and defend their budgets.

The Front End

"People come to Charleston from a lot of different zip codes," says Pam Ragland, "and Class allows us to track and analyze where our patrons are coming from—and market specifically to them." Shannon Singler, public affairs officer for San Diego County Department of Parks and Recreation, says such data mining is a top priority for San Diego, a jurisdiction that also draws visitors from all over the world. She describes, for example, a promotional discount system improvement created by Art Street to assist with revenue tracking. As San Diego County's marketing team identifies where investments are working best, they will drill further into that data and develop strategies for targeting those niches.

"It's about more than demographics," says Singler. "Working with our vendor this way helps us understand the psychographics of our patrons."

The Back End

Justin Smith says one of the greatest contributions Baton Rouge's CMMS has made is to the budgeting process. "It has helped us simplify it," he comments. "In the past, our finance department would track on a per-park basis. We no longer need Finance to do that. We've shortened it from hundreds of budget codes to about 15— all of them shop-based. And we do our data tracking within each individual [site-based] 'shop'."

Once maintenance data is divorced from fixed budget codes in this way, park operations managers have the freedom to determine exactly which (and how much) data to log—while ultimately enhancing financial reporting. "We have 60,000 to 70,000 inputs per year," says Steve McDaniel of the number of individual records entered by Fort Wayne park maintenance staff. "The database gives us knowledge of what we've been doing and what we need to plan for the future." McDaniel cites snow removal as a perfect example of the kind of planning the CMMS data helps his department do. "We can see the last several years' costs for vehicles, labor, salt, and sand. We don't always get it right, but all that data helps us get the budget very close."

McDaniel adds that the data is not only crucial for accurately forecasting costs—but that it allows him to analyze processes for efficiency and economy. "We track by the task and by the park. We can say, 'This park costs this much to mow—and we've studied how to do it most efficiently.' And then I can export and email a PDF report that backs it up."

McDaniel concludes by echoing a sentiment expressed by each administrator, park director, public affairs officer, and IT manager interviewed for this article: "The most important thing," he says, "is that I can tell anyone who asks me what a lean operation we are running."

What's Next?

When asked to speculate on what's next for park agency software technologies, interviewees identified the following emerging trends:

- **GIS integration for both front and back-end functions.** Registrants can use map-based interfaces to identify their chosen centers, programs, and classes; and park employees can enter site-specific data using maps with touch screens.
- **More options for golf courses and campgrounds.** Specialty packages or modules for golf courses and campgrounds will work alongside general registration and maintenance software systems to meet the increased demand for these public facilities.
- **Fleet management.** Whereas most systems track equipment usage by the mile, vehicles present a different recordkeeping challenge. Integrated fleet management capabilities can help not only with maintaining vehicles, but with pooling them and using them in more cost-effective ways. Expect also to see better GPS tracking in fleets to allow for remote access of vehicle maintenance data, including emissions and fuel efficiency.
- **Plenty of plug-ins.** Add-ons to existing systems can allow agencies to enrich their services with such functions as differentiated ID/pass entry and event ticketing options. Agencies can add or eliminate these special functions as needed, while core system modules remain unaffected.

For tips and best practices from veteran park technology administrators, see the digital edition at http://digital.parksandrecreation.org